caBIG™ Workspaces:

- Clinical Trial Management Systems
- Tissue Banks & Pathology Tools
- Integrative Cancer Research
- Vocabularies & Common Data Elements
- Architecture

caBIG™ Strategic Level Working Groups:

- Strategic Planning
- Data Sharing & Intellectual Capital
- Training

For further information on caBIG™, please see http://caBIG.nci.nih.gov

If you have an inquiry about caBIG, please e-mail caBIGinfo@cancer.gov

About caBIG™

The cancer Biomedical Informatics Grid, or caBIG™, is a voluntary virtual informatics infrastructure that connects data, research tools, scientists, and organizations to leverage their combined strengths and expertise in an open environment with common standards and shared tools. Effectively forming a World Wide Web of cancer research, caBIG™ seeks to link communities and information to help eliminate suffering and death from cancer.

caBIG™ is facilitating advances in cancer research by breaking down technical and collaborative barriers within the cancer community that exist across disciplines and organizations throughout the country. Greater connectivity and sharing of information among researchers, clinicians and others in the cancer community ultimately benefits patients receiving cancer care.

As part of the activities in building the Grid, participating National Cancer Institute (NCI) designated Cancer Centers are developing or providing standards-based biomedical research applications, infrastructure, and data sets. The implementation of common standards and a unifying architecture ensures interoperability of tools across the Grid, facilitating collaboration, data sharing, and streamlining cancer research activities across the spectrum.

Built on the principles of open source, open access, open development, and federation, caBIG not only benefits the current caBIG community, but is open and readily available to anyone in biomedical research who could reap the benefits of its shared environment. NCI believes that caBIG™ will help redefine how cancer research is conducted, and eventually, how cancer care is provided. The initiative promises to speed progress in all aspects of cancer research and care including etiologic research, prevention, early detection, and treatment.

caBIG Structure and Activities

Launched in February 2004 under the coordinating oversight of the NCI, caBIG™ was designed and developed in collaboration with 50 NCI-designated Cancer Centers and over 80 volunteer organizations and other interested groups. In the planning phase of caBIG™, five key areas were identified in which the Cancer Centers could provide, or help develop solutions: Clinical Trial Management Systems, Integrative Cancer Research, Tissue Banks and Pathology Tools (Domain Workspaces) and Architecture, and Vocabularies and Common Data Elements (Cross-Cutting Workspaces). Detailed information regarding these Workspaces is available on the caBIG™ Web site at http://caBIG.nci.nih.gov/workspaces.

caBIG™ *cancer Biomedical ™ Informatics Grid*

In addition to the five Workspaces, three Strategic Level Working Groups have also been convened: Strategic Planning, Data Sharing and Intellectual Capital, and Training. Detailed information regarding these Working Groups is available on the caBIG™ Web site at http://caBIG.nci.nih.gov/workspaces.

Collectively, these eight groups are not only building the foundation for caBIG™, they are also driving caBIG's goals, priorities and activities. Voluntary participation is welcome and encouraged, and will help ensure caBIG's long-term success. To become involved with a Workspace or Working Group, please visit the caBIG™ Web site at http://caBIG.nci.nih.gov/contact_us.

Progress & Products

caBIG™ is delivering cancer and biomedical research products now - including software tools, databases, prototypes, infrastructure, standards, white papers, and development models. In its first year, caBIG™ launched over 75 individual projects including the first iteration of the caBIG™ Compatibility Guidelines and end-to end solutions like caARRAY and genePattern, that provide micorarray tools at both ends of the process, or cytoscape and caWorkbench that provide analysis capabilities for molecular pathways. Many other products are coming online, including clinical trials solutions, tissue banks and pathology tools, and integrative cancer research applications and data sets.

Over 600 individuals now contribute to the caBIG initiative collectively. Over 24 new products are expected to be delivered during the 2005 calendar year, along with multiple data sets. All products produced by caBIG™ are openly available for use by the caBIG™ community and the broader research community. All products and datasets can be found on the caBIG™ Web site at http://caBIG.nci.nih.gov/inventory.

Priorities & Funding

Funding allocations to Cancer Centers for new and existing work follow priorities established at the grass roots level within the caBIG™ Workspaces and Working Groups. The participants' assessment of challenges in their respective areas, progress of current work, and emerging opportunities set the goals for each year of the project. NCI and the caBIG Project Team work with the eight groups to balance continuity of the program with new opportunities across the caBIG™ initiative. Contracts are awarded to Cancer Centers and managed by the NCI and the caBIG™ Project Team. For more information on priorities and funding, please see the caBIG Cancer Center Directors Update at http://cabig.nci.nih.gov/cd/R-01_caBIG_DirectorsUpdate_February2005.pdf or send an email to caBIGinfo@cancer.gov.

The Evolution of caBIG

Ultimately, the evolution of the caBIG™ network should be accompanied by the growth of a self-sustaining caBIG community. caBIG started with NCI-designated Cancer Centers and is now reaching out to NCI's Specialized Programs of Research Excellence (SPOREs), which promote interdisciplinary research among the basic and clinical sciences, NCI's Clinical Trials Cooperative Group Program, that involves researchers, cancer centers, and community physicians, and other NCI programs. caBIG is also exploring ways to engage the broader cancer community. Discussions about potential partnerships between caBIG and other NIH components, Federal agencies and international initiatives are also taking place. All of these groups share a common commitment to the importance of open and shared biomedical informatics tools, standards, infrastructure and data.

Further Information about caBIG

To learn more about caBIG™, please visit the caBIG™ Web site at http://caBIG.nci.nih.gov.

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